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A Typology of Online Labor Platforms

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Abstract

A Typology of Online Labor Platforms

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Online labor platforms, such as Uber, Mechanical Turk, and Care.com, hold the potential to transform the nature of employment. As the number of platforms continues to grow, the same term ("platform") is being used to describe an increasingly wide array of services, which belies much of the variability in their nature. In this paper, I build a typology that serves to identify the important ways in which the platforms are similar, and in what ways they diverge. This typology identifies and analyzes the attributes of ten prominent categories of platforms by area of service: Transportation, Housework, Delivery, Hiring, Microwork, Therapy, Video, Professional Freelance, Hospitality, and Commerce. I find that certain attributes of platforms, such as the duration of working arrangements and the presence of rating systems, have important implications for organizational theory. Understanding the differences between platforms can help researchers understand platforms' varying potential for altering work and organizations,

and how organization theory may need to adapt to accommodate some of these changes but not others.

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A TYPOLOGY OF ONLINE LABOR PLATFORMS

1. Introduction

Certain technological innovations, such as the assembly line and modern communication technologies, have resulted in major changes in both work and organization, and consequently, scholars have had to adapt organizational theory to account for these changes. For example, Walker and Guest (1952) studied how new assembly line workers adjusted to the attributes that differentiated assembly work from traditional manufacturing work. They found that the simplification of job routines resulted in increased indifference, absenteeism, and decreased job satisfaction, among other findings. Organizational theory evolved to consider new theories of job design to counter these negative effects. Hackman and Oldham's (1976) research on motivation through the design of work is an example: This research helped scholars and practitioners understand how aspects of a job can be altered to increase motivational incentives for workers, thereby increasing worker satisfaction. Similarly, recent developments in communication technologies, including the internet and file transfer protocol (FTP), facilitated the growth in distributed teams, which has resulted in decades of adjustment to organizational theory's understanding of work group processes. For example, Hinds and Bailey's (2003) work on geographically distributed teams helped organizational theorists understand why distant teams might undergo more conflict than traditional teams. Like assembly lines and communication technology advances, online labor platforms could represent a change to the nature of work to which organizational theory must adapt.

In fact, in recent years, many members of the media and some academics have shifted their attention towards the "gig economy." In the gig economy, a "growing share of the American workforce is no longer employed in "jobs" with a long-term connection with a

company, a job ladder, and mutual interest in the well-being of both the company and the worker" (Friedman, 2014, p. 171) and instead are hired for particular tasks for short periods of time. Others write about the sharing economy, a "catch-all name for 'peer-to-peer' firms that connect people for the purposes of distributing, sharing, and reusing goods and services" (Mathews, 2014). Some argue that the gig and sharing economies have the potential to transform the lives of workers, the labor market, and the nature of work itself. Frazer (2019), a Forbes contributor, argues that the gig economy, supported by online labor platforms such as Uber, is "reshaping careers for the next generation." Researchers Burtch, Carnahan, and Greenwood (2018) found that gig economy platforms have hurt local entrepreneurship activity by offering underemployed individuals quick and easy employment opportunities. Scholars have also cited platforms as contributing to the expansion of contingent work, which along with the offshoring of middle class jobs and the rise of artificial intelligence, is changing the nature of work in the 21st century (Barley, Bechky, & Milliken, 2017).

Within the gig economy, online labor platforms play an important role in facilitating connections between workers and clients. Although researchers have begun examining work performed on platforms and platform organizations, within these papers the term "platform" often goes undefined. For example, Huff and Tingley (2015) examined the demographic characteristics and political preferences of workers on Mechanical Turk without defining the term; likewise Hall, Horton, and Knoepfle (2017) and Lee, Kusbit, Metsky, and Dabbish (2015) in their respective studies of sudden price changes and algorithmic management on the Uber and Lyft platforms do not define what they mean by a "platform," instead simply naming the ones that they study. Few generalizations can be drawn about platforms across studies of such disparate services, even though these studies ostensibly study the same phenomenon. For

example, Mechanical Turk provides a vastly different service from Uber and Lyft and represents a disparate form of work. In this paper, I develop a typology to help scholars understand the important similarities and differences for work and organization across online labor platforms and consider what the implications for such differences may be for organization theory.

Specifically, understanding the differences among platforms should help organizational researchers identify which types of platforms most mimic existing organizations across different dimensions, such as their employer-employee relations and decision-making processes. Studies on the types of platforms that resemble existing organizations may show that these enablers of so-called "new forms of work" are not as revolutionary as the platform companies and many current writers claim they are. On the other hand, studies of platforms dissimilar from existing organizations may push current organizational theory beyond its established bounds. In short, this typology will help support academic theorizing and future research.

Furthermore, understanding the differences among platforms is important for real-world practice. Potential workers could use this typology to learn more about the important issues faced by workers on various platforms. Additionally, knowing the differences among platforms may help workers avoid those platforms with characteristics they find undesirable. Regulators and lawmakers may also find the typology useful in determining to what sorts of regulations platform companies ought to be subject. For example, in New York City, Lyft is suing to block the implementation of a minimum wage law for drivers that Lyft argues will unfairly disadvantage their platform (Marshall, 2019). The number of such legal issues may increase as regulators and lawmakers adapt to the changing technological landscape, and having a typology may help to determine which policies, regulations, and laws might work best for platforms of each type. Thus, I propose the following three research questions.

RQ 1. What are the major similarities and differences amongst platforms?

RQ 2. How do platforms compare to their traditional counterparts, and which types of platforms represent new forms of work?

RQ 3. What implications do platforms' similarities and differences with one another and with their traditional counterparts have for organizational theory in terms of the field's understanding of work, workers, and organizations?

To answer these questions, I develop and analyze a typology of online labor platforms. Some previous typologies and taxonomies have already brought attention to important issues concerning platforms. For example, Quinn and Bederson (2011) examined and classified human computation systems such as Mechanical Turk and raised concerns about ethics and labor standards on such platforms. Similarly, Kaganer, Carmel, Hirscheim, and Olsen (2013) analyzed "human cloud" platforms, but in contrast to the work by Quinn and Bederson, their research focused on the priorities of clients rather than workers. Finally, Vakharia and Lease (2015) compared seven crowd work platforms to Mechanical Turk and found that the Mechanical Turk platform has certain limitations (e.g., a lack of support for fraud prevention) that other similar platforms did not have. While these previous typologies are useful, my typology differs from prior work in at least three ways. First, I primarily develop my typology through a ground-up examination of a wide set of platforms rather than a narrow subset of platforms (e.g., Quinn and Bederson's (2011) analysis of human computation systems and Vakharia and Lease's (2015) examination of crowd work platforms). Second, unlike prior work, I consider a wide range of platform attributes, including general attributes (e.g., the duration of service that workers provide and whether arrangements are repeatable) as well as attributes concerning information exchange and the matching process (e.g., what the client knows and what the worker knows) and attributes

detailing financial arrangements and worker incentives (e.g., who decides the price and whether or not gamification is employed). Third, and most significantly, this paper uniquely seeks to make direct ties to organizational theory and uncover in what ways organizational theory may need (or may not need) to adapt to accommodate the emergence of platform work.

2. Methods: Finding and Analyzing Online Labor Platforms

I employed a theoretical sampling approach to develop this typology (Strauss, 1987). Theoretical sampling involves "sampling on the basis of the emerging concepts, with the aim being to explore the dimensional range or varied conditions along which the properties of concepts vary" (Strauss & Corbin, 1998, p. 73) In other words, rather than looking for a statistically representative sample from the online labor platform space, I strategically chose platforms whose distinct and unique attributes would expand the range of attributes under consideration to ensure my typology covered the full breadth of differences among platforms.

First, I needed to define the term "online labor platform." Kenney and Zysman (2015) defined platforms as "frameworks that permit collaborators—users, peers, providers—to undertake a range of activities, often creating de facto standards, forming entire ecosystems for value creation and capture." Drawing from their conception of platforms, I define online labor platforms as *online frameworks that connect paying clients to individuals who perform paid work of some type, amount, and duration for the client*.

Next, I began collecting a list of online labor platforms. I started this process by making note of the platforms of which I already knew, such as Uber, Lyft, and Mechanical Turk. I then searched for articles in both popular media and academic journals on the topic of "gig economy" or "platform work" and noted the various platforms under discussion. Because this method failed to capture under-covered and understudied platforms, I then broadened my search to "ways to

earn money online" and noted websites and services that fit my definition of online labor platforms. I also discussed my research with colleagues and made note of additional platforms I had not previously considered. I ended with a list of over 50 online labor platforms. From there I began to narrow down my list to develop a theoretically useful set.

To this end, I focused on platforms on which at least one party performed work of some type, amount, and duration, thus excluding social media platforms. While many corporations employ social media teams to work on platforms such as Twitter and Facebook, and such work should not go ignored by scholars, "work" is not the primary goal of such platforms and I thus omitted them from analysis here. Additionally, I aimed to explore the types of online labor platforms that have the potential to replace or transform the work of sizable portions of the workforce. Thus, for example, I included online therapy platforms and not psychic worker platforms despite the apparent similarities in their business models because many more people are employed in therapy occupations than in psychic ones.[1] I also excluded illicit platforms, such as the Silk Road, where the primary work done through the platforms is illegal, such as drug sales and prostitution, because organizational theory has traditionally excluded illicit work from much of its theorizing. I also narrowed my focus to include primarily platforms operating within the United States to keep constant issues related to labor law and contractual relations.

I then sorted the remaining platforms into categories based on the service provided. I sorted the platforms into ten distinct categories: Transportation, Housework, Delivery, Hiring, Microwork, Therapy, Video, Professional Freelance, Hospitality, and Commerce. For each category, I chose two prominent examples of each platform to analyze so that I might consider

[1] According to the Bureau of Labor Statistics (2018), there are over half a million mental health professionals in the United States, including clinical and counseling psychologists, mental health counselors, psychiatrists, substance abuse counselors, and marriage and family therapists. A September 2018 IBISWorld report stated there are slightly less than 90,000 psychic workers in the United States (Industry Market Research, Reports, and Statistics., 2018).

consistency within each platform type. For example, I included both Care.com and Sittercity in the category of Housework. The result was twenty platforms in my sample.

As I collected my list of platforms, I considered and took note of the important attributes of online labor platforms, such as the duration of service, platform fees, and so on, with special consideration of attributes that might differentiate platforms from one another. I generated this list of attributes from close reading of the platforms' websites and press releases in addition to journal articles written about the platforms. I grouped similar attributes, such as "Who Decides Price" and "Wage Guarantee," together under broader attribute labels, such as "Financial Arrangements."

In this process, I considered several attributes of online labor platforms that I ultimately removed from my analysis. For example, I considered a "Living Wage" attribute, but ultimately discarded it because the complexity of assessing what would be considered a living wage rendered a determination of this attribute for each platform infeasible. For instance, the cost of living differs from place to place, and the platforms may also offer differential pay depending on the region or city where the work is performed. Additionally, workers may differ in their work output, allowing more efficient workers to earn a living while other workers could not. For example, although the platform Mechanical Turk presents itself as a way of making money in people's spare time (Amazon, Inc., n.d.), some highly efficient workers claim to make enough income to live on in the United States (Naab, 2019). I also considered an attribute that examined how platforms attracted workers to the platform, but I discarded it after failing to find reliable data on how workers found out about the platform and what motivated them to join each platform. Specifically, although numerous anecdotal articles explained how individual workers

first began working (Vahtel, 2016; Abbot, 2016), I did not encounter reliable data across platforms on how they found workers.

I ended up with twenty attributes across which platforms may differ. I then organized attributes uniquely into three attribute sets: General Information; Information Exchange and Matching Process; and Financial Arrangements and Worker Incentives.

Six attributes belong to the "General Information" set:

- *Duration of Service*: This attribute examines the length of typical working arrangements. Working arrangements can be short term (less than 24 hours), medium term (between 24 hours and a month), or long term (greater than a month). Some platforms offer a combination of short, medium, and long term options.
- *Arrangement Repeatable or Renewable*: This attribute examines if the arrangement can be repeated with the same client and worker pairing. Possible values are yes, no, and N/A. If marked "yes" this indicates that the client can contact the worker and request the worker perform an additional task. Alternatively, the client may preemptively allow the worker to perform the same task multiple times. If the value is "N/A", this indicates that this attribute is not directly applicable. For the Hiring platforms, there would be no need to repeat an arrangement as all jobs are long term.
- *Self-Identifies as a Platform*: This attribute examines if the company identifies the service as a platform on their website or in their press releases. Possible values are yes or no.
- *Year Founded*: This attribute examines what year the company of each platform was founded.

- *Rating or Feedback System*: This attribute examines if the platform has a rating or feedback system in place. Possible values are no, one way (e.g., client rates worker but worker does not rate client), and two way (clients and workers rate each other).
- *Presence of Online Communities*: This attribute examines if workers discuss facets of their work in online communities, such as forums. Possible values are yes or no.

Seven attributes belong to the "Information Exchange and Matching Process" attribute set:

- *Who Initiates*: This attribute examines which party initiates the work arrangement. In Uber, for example, the arrangement is initiated by the client, who requests a ride. Possible values are client, worker, or either party.
- *Who Accepts Offer*: This attribute examines which party accepts the offer. Possible values are client, worker, mutual acceptance (both parties must accept the agreed terms), or automatic acceptance (the platform automatically accepts the arrangement).
- *Who Picks or Matches*: This attribute examines how workers are matched with their respective clients. Possible values are client, worker, or platform. If the value is "platform", I also specify how the platforms makes the match (algorithmically or manually by a human).
- *Client Knows*: This attribute examines what the client knows about the worker before the work has started. There are many possible values for this attribute. Examples of attributes include nothing, worker bio, price, gig description, and rating.
- *Worker Knows*: This attribute examines what the worker knows about the client and the job before the work has started. As with the "client knows" attribute, there are many possible values for this attribute. Examples include pay, distance, and job description.

- *Background Check*: This attribute examines if the worker must submit to a background check to perform work using the platform. Possible values are yes, no, or optional.
- *Other Requirements*: This attribute examines what other prerequisites the worker must have to perform work using the platform. There are many possible values for this attribute, such as relevant master's degree, work experience, a rental unit, and more. For some platforms, the requirements may vary depending on the task; for these platforms, the attribute is given the value "varies by task."

Seven attributes belong to the "Financial Arrangements and Worker Incentives" attribute set:

- *Worker Paid through Platform*: This attribute examines if the worker is paid through the platform or directly by the client. Possible values are yes, no, and optional.
- *Who Decides Price*: This attribute examines which party decides the price. Possible values are algorithm, negotiation, worker, and client.
- *Wage Guarantee*: This attribute examines if the worker is guaranteed a certain wage amount. Possible values are yes and no.
- *Platform Fee*: This attribute examines how, or if, the platform charges the worker, with possible values yes and now. If yes, I include the percentage take (if the platform takes a percentage) and indicate if the worker must pay a listing fee. If the client pays the platform fee, I state this information in parentheticals.
- *Negative Consequences for Declining*: This attribute examines if the worker is negatively impacted if they decline work. Possible values are yes or no.
- *Gamification Methods*: This attribute examines if the platform uses gamification strategies to incentivize certain behavior from the worker. For example, Uber has the

"Uber Quest" feature, which rewards drivers with a bonus for completing a certain number of trips within a given time frame. Possible values are yes or no.

- *Possibility for Advancement*: This attribute examines if the worker can receive a "promotion" or similar status upgrade. Possible values are yes, no, or indirect. "Yes" indicates that the worker can receive a new title that confers certain benefits to the worker, such as increased visibility or status. For example, the platform Fiverr provides "levels" for dedicated workers on the platform. Once Fiverr workers meet certain requirements and benchmarks (such as completing a certain number of orders), they can "level up" and receive extra benefits. "Indirect" indicates that the platform does not offer "official" promotions, but the worker can still increase their status on the platform indirectly. For example, on YouTube workers may increase in the number of regular viewers they receive, which would reward them with increased income and recognition by clients.

Table 1 shows to which attribute set each attribute belongs. For each platform, I recorded the values of each attribute in a spreadsheet. Data collection and recording of attributes occurred from February to March 2019. Most of the data came from examining the platforms and their websites. For each platform, I searched their "home" page, "about" page, FAQs, and other informative pages unique to the platform. Additionally, I examined press releases and news articles about the platforms when I could not find the necessary information on their website. For each platform I signed up as a client and/or worker (when possible) to discover what information is presented to each party. In one case, I emailed customer service representatives with questions about the platform's use of algorithms in the matching system because that information was unavailable via other means.

After I finished gathering information on the platform attributes, I sorted the platforms into three classes: *Local, Virtual,* and *Capital*. De Groen, Maselli, and Fabo (2016) divided platforms into physical/local services (which necessitate the worker perform the work near the client) and virtual/global services (which can be performed anywhere). Similarly, I created two classes of online labor platforms to broadly sort the platforms by geographic location of the labor performed. *Local Online Labor Platforms*, such as Uber, facilitate labor within the client's local area and generally have the worker interact closely with the client. *Virtual Online Labor Platforms,* such as Mechanical Turk, have workers perform tasks virtually that can be performed anywhere in the world. A third class, *Capital Online Labor Platforms*, represents platforms such as Etsy that involve workers selling or renting physical assets to clients. In this class, workers still perform labor, but their labor lies more in the background (e.g., creating the craft, readying the lodging for rent) than in the foreground as in the other platforms (e.g., driving the car, completing the micro-task). Farrel and Greig's (2017) work created a similar distinction by dividing the platforms into two types: labor platforms, such as Uber, and capital platforms, such as Airbnb. Although this separation into labor and capital platforms is useful, I argue that their labeling unduly deemphasizes the labor performed by workers on the capital platforms. For example, on Hospitality platforms workers must manage their listings, clean and maintain their properties, and interact with current and potential clients. Commerce platforms workers also have to manage their listings in addition to creating products and shipping them. Creating classes to distinguish the geographic location of the labor performed and background versus foreground labor is important because these two variables significantly impact the employer-employee relationship. Studies of *Local Online Labor Platforms* can consider the role of face-to-face employee client interactions. Studies of *Virtual Online Labor Platforms* can consider the

additional flexibility afforded by the work's online nature, such as the ability to perform the work asynchronously from the client and at any place, and may suggest greater worker autonomy. For the *Capital Online Labor Platforms*, the work largely remains hidden from the client, and the worker is not directly evaluated or paid based on the work performed, but rather for the quality of the good they rent or sell. This difference between work done and goods rented or sold may afford a psychological distance between the worker and client with implications for organizational theory. Table 2 shows to which platform class each platform category belongs.

In the next section, I discuss why each platform class or category may be of interest to scholars of work and organizational theory. Additionally, I analyze the attributes present across the twenty platforms and discuss why some of them may be important for theory.

3. Results: Why Platforms and Their Attributes are important for Organizational Theory

I discuss the results of my analysis in two sections. In the first section, I describe each platform category, discuss relevant research on it, and explore why the category may be of interest to organizational theorists. In the second section, I examine how platforms differ by class according to their attributes, and in what ways these differences across platforms are important. In other words, I seek to identify the differences that make a difference for work on platforms. I also address interesting or surprising ways that platforms are similar, especially when this similarity provides an interesting comparison or contrast to existing or traditional forms of work.

3.1 Platform Categories, Relevant Research, and Implications for Organizational Theory

I briefly discuss why each platform class has distinct considerations for organizational theory. I then discuss the platform categories one by one with the aim of highlighting implications for organizational theory.

Local Online Labor Platforms

On Local Online Labor Platforms, workers face a few dynamics not present in the other two classes of platforms. Most prominently, they interact directly with the client, which carries with it a few considerations for organizational theory. For one, the physical presence of the client means the worker must consider how they present themselves to the client. Particularly for platforms with tipping and rating systems, the client's impression of the worker matters significantly, and the worker may have to engage in some amount of emotional labor to entertain or satisfy the client through small talk and similar acts. They also may have to deal potential with harassment or physical abuse from clients. In these ways, *Local Online Labor Platforms* do not represent a large departure from traditional (non-platform) client-facing work.

Transportation Platforms

Transportation platforms (in this study, Uber and Lyft) connect clients (who the platforms refer to as "riders") seeking transportation to workers (who the platforms refer to as "drivers") who take the clients to their chosen destination using the worker's own vehicle. The client requests a ride through the platform's software application (hereafter, "app") and receives information about the price and estimated time of arrival at their destination. The platform, through the use of an algorithm, then matches the client to a nearby worker, and the worker may choose to accept or decline the ride. If the worker accepts the ride, the app then gives her navigation instructions on where to pick up the client and, after picking up the client, how to drive him to his destination. After the completion of the ride, both the client and worker rate the other party on the app, and the client may pay a tip and/or a compliment (such as "Good Conversation") to the worker.

Transportation platforms, also called rideshare platforms, have provided anywhere from 24% to 43% of Americans a ride as of June 2018 (Molla, 2018). Perhaps commensurate with

their popularity with clients, many academics have studied these platforms. This literature emerges from many disciplines, including economics, management, law, and more. For example, Chen and Sheldon (2015), writing in the field of economics, studied the effects of platform attributes and features, such as surge pricing, on worker habits and labor markets. From the field of human-computer interaction, Lee, Daniel, Kusbit, Metsky, and Dabbish (2015) studied how workers responded to algorithmic management features, such as driver assignment and surge pricing. Studies such as these highlight the need for organizational scholarship that examines how algorithmic management affects workers' actions and decisions and what importance workers place on how transparently algorithms operate.

Housework Platforms

Housework platforms (in this study, Care.com and Sittercity) connect clients to workers who offer childcare, housekeeping, and other domestic services. Clients, who must pay a monthly subscription fee to the platform, can post jobs for workers to apply to or they can browse profiles of workers in the client's local area and request their services. While many clients seek consistent and regular workers, clients may also request workers temporarily or for one-off gigs.

Housework platforms present an interesting set of considerations for organizational theory. Ticona and Mateescu (2018) argued that housework[2] platforms such as Care.com represent an attempt to formalize aspects of the hiring process, such as IRS reporting, that have traditionally taken place informally, for example by both parties deciding to forego income notification to tax authorities. The authors' analysis of three platforms (Care.com, UrbanSitter, and Sittercity) found that while platforms can increase worker visibility to potential clients, they

[2] Tocona and Matessu use the term "carework" platforms. I prefer the term "housework platform" as platforms such as Care.com offer services unrelated to care, such as personal assistants and house cleaning services.

may also increase worker visibility to institutions such as the IRS. However, such institutional visibility is not mandated; rather, visibility to institutions, while encouraged by the platforms, is optional. That is to say, workers can choose to document their pay (which is useful for workers who need to prove income, e.g., they want to buy a home) or chose not to do so. This visibility has important implications on how workers find employment using the platform. For example, platform work in this instance provides an interesting pathway for invisible and arguably illegal arrangements (i.e., sitters, in the past, have often avoided reporting income, and clients likewise have not had to pay into social security pay into social security) into legal arrangements. A policing or officiating element arises in Housework platforms that does not appear, for example, in Transportation ones because while many nannies were operating invisibly prior to platforms, there were not legions of drivers who were doing so.

Delivery Platforms

Delivery platforms (in this study, UberEats and Postmates) connect local stores and restaurants to clients requesting delivery of food or other goods. Clients, using the platform's app or website, browse a selection of goods from partnered businesses and can request delivery of selected products. The app then uses an algorithm to select a nearby worker to pick up the order from the designated store or restaurant and deliver it to the client.

Although many studies mention Delivery platforms such as Postmates in their discussion of the gig economy, no papers appear to directly study workers on Delivery platforms. Yet, Delivery platforms offer new considerations for organizational theory because, unlike other platforms considered in this report, they facilitate transactions between three parties (client, worker, and business) instead of just two parties. Delivery workers thus must consider the needs of both the business and client, and at times these needs may come into conflict (e.g., a client

makes a special request that the business cannot fulfill), placing the worker in the position of a mediator. Moreover, workers in this arrangement do not represent a single business (as they may have done traditionally as formal employees) and have to adapt to the norms and procedures of a variety of businesses. This dynamic means that workers may not feel the need to represent the businesses to the clients kindly or accurately considering the workers are primarily incentivized to please the clients, who rate and tip them, rather than the businesses who have traditionally employed the workers and have lost the ability to "fire" them in the platform model of employment. For example, workers could, justly or unjustly, blame the restaurant for a late delivery, or workers could express to the client a preference for a competing business's product.

Hiring Platforms

Hiring platforms (in this study, Glassdoor and ZipRecruiter) serve to connect workers to long term working arrangements in the traditional economy. Clients can post jobs for potential workers to search and browse. Workers can upload their resume, preferences (such as willingness to relocate or salary range), and other pertinent information to the platform and an algorithm can suggest relevant job opportunities to the worker.

Existing scholarship relies primarily on examining worker reviews left on Hiring platforms rather than on the experience of workers and clients utilizing the platform and focuses on issues of corporate performance. For example, Luo, Zhou, and Shon (2016), using textual analysis of reviews on Glassdoor, found that overall employee satisfaction is positively correlated with corporate performance. Similarly, Ji, Rozenbaum, and Welch (2017) found using Glassdoor reviews that lower levels of job satisfaction and corporate culture resulted in increased financial risk to workers' respective companies. Future studies that extend data collection to interviews or surveys of workers could reveal how the job searching experience differs on the

platform from traditional ways of finding employment. For example, the additional information afforded by hiring platforms (such as employee reviews and salary information) could have implications for workers' decision making. Additionally, interviews with businesses' hiring managers could reveal how businesses have adjusted hiring strategies to account for the prevalence of Hiring platforms. These platforms increasingly may shape workers' first impressions of companies, and these impressions might influence their sense of belonging and ideas about organizations' corporate cultures. New scholarship could consider how Hiring platforms influence workers' anticipatory socialization.

Virtual Online Labor Platforms

Workers on *Virtual Online Labor Platforms* must deal with some advantages and disadvantages not faced by workers on *Local Online Labor Platforms.* One advantage for workers is that they do not have to synchronously engage with their clients. After a client makes a request, the worker can fulfill the request at any time of day as long as the task is completed within a given timeframe. However, the lack of physical and synchronous human contact could result in feelings of isolation. In these ways, workers on these platforms mirror dynamics of traditionally self-employed workers who work from home.

Microwork Platforms

Microwork platforms (in this study, Amazon's Mechanical Turk and Microworkers.com) allow clients to create short tasks, such as filling out a survey or performing data validation, and list the tasks on the platform for workers to see. Typical tasks take a few minutes to an hour to complete and generally reward less than a dollar, though some tasks may pay more depending on the client and type of task.

As Microwork platforms represent an entirely new form of work, the platforms present a wide new set of issues for theorists to consider. For example, Irani and Silberman (2013) argued that the design of Mechanical Turk prioritizes the needs of employers and minimizes the rights of workers. She found that workers on the platform raised concerns about their work regularly being rejected unfairly, slow payment, unfair compensation, and a lack of responsiveness on the part of both clients and Amazon to their concerns. The absence of a traditional management hierarchy or human resources department on Microwork platforms means that an individual worker has almost no power as an individual to address unfair work practices. However, workers could organize using online communities and express their collective dissatisfaction or increase awareness of dissatisfactory clients among workers.

On *Virtual Online Labor platforms*, including Microwork platforms, work can be performed anywhere, which raises questions about the demographics of workers on such platforms as demographic factors could affect how workers respond to certain tasks. For example, a political scientist may be curious about the demographic factors of survey respondents. To help address this question, Huff and Tingley (2015) examined demographic characteristics and political leanings of workers on Mechanical Turk and found the average age of workers is 32 (compared to the national average of 38), and that the platform had 50% more Democratic workers than Republican ones. Knowing the demographic makeup of workers may matter for clients requesting other tasks as well, including usability testing.

Therapy Platforms

Therapy platforms (in this study, BetterHelp and Talkspace) connect clients to licensed therapists and counselors. Unlike in traditional forms of therapy, in therapy via platforms workers perform all of the communication online. Clients with a baseline subscription plan can

send daily messages and the worker will respond a certain number of times per week. More expensive plans offer clients the opportunity to have live sessions with the therapists.

Few researchers have studied Therapy platforms, and all but one of the studies conducted focused on the effectiveness of the treatments for the client, not on the nature of work on the platform. Whaley (2018), who examined the ethical, practical, and legal considerations therapists must make on the platform Talkspace, argued that workers have an ethical responsibility to reply to their clients in a secure manner and to accommodate clients' cultural and religious needs as clients may live far away from the worker and in areas that could differ drastically from the workers' in regards to typical norms and beliefs. Additionally, practical considerations include making sure the worker can reliably connect with clients and overcome potential technological barriers. Finally, Whaley found that as clients may withhold or misrepresent personal information, including their name and location, therapists may not be able to contact local services or reach their client in cases of emergency or crisis (e.g., self-harm events or suicide). While Whaley's work effectively demonstrates many of the additional considerations workers must make on Therapy platforms, I argue that the virtual element of Therapy platforms could cause a fundamental shift in the role of counselors altogether. Traditionally, therapists have met with clients in person for a set amount of time on a regular and scheduled basis, but workers on Therapy platforms communicate daily with their clients. In this way, therapists may focus more on helping clients through short term and immediate problems rather than building toward long-term improvements in clients' mental health through regular therapy sessions. While no papers appear to collect interview or other sorts of data directly from workers on Therapy platforms, such research could contribute to our understanding of how workers perceive their changing role and adapt to work on the platform.

Video Platforms

Video platforms (in this study, YouTube and Twitch) allow individuals to post videos or stream video content on the platform. If an individual receives sufficient viewership numbers on her content, she can apply to become a "partner" with the platform, which will allow her to receive income for work done on the platform. Workers may earn money through advertisements run on their content and through optional subscriptions and donations.

Like Microwork platforms, Video platforms allow for an entirely new form of work and raise new questions for organizational theory. While past studies have examined Video platforms from a community or cultural perspective (see, for example, Burgess and Green's (2018) book on online video and participatory culture or Shifman's (2011) analysis of YouTube memes) recent research has begun recognizing the novel work performed by users on such platforms. For example, Cheng et al. (2014) found that workers on the YouTube platform used viewer analytic tools to adjust their video deployment and client engagement strategies to increase viewership and revenue numbers. Likewise, Postigo (2016) examined the variety of social and technical affordances that YouTube affords its workers and found that these affordances interact in important ways. Additionally, Johnson and Woodcock (2019) conducted interviews with workers on the platform Twitch.tv and analyzed how workers began working on the platform and what the work entailed. They found that a lack of formalized training for this new form of work meant that workers had to independently develop their skills. Additionally, some workers worked for up to 90 hours a week with no guarantee of a return on this substantial time investment.

Video platforms resemble a significant departure from how video work has traditionally been performed. Traditional video workers worked with a wide array of collaborators, including agents, directors, stations, networks, and more. Platform video workers, who by in large start

alone and without a supporting staff, must handle content creation unassisted while handling the business and legal (e.g., copyright) sides at the same time. New research could contribute to our understanding of how these workers manage all dimensions (business, legal, and creation) of the work; perhaps they form contacts and relationships with fellow workers, or they may learn from watching other creators' videos that detail how they found success on the platform.

Professional Freelance Platforms

Professional Freelance platforms (in this study, Fiverr and Upwork) connect freelance workers to clients who need professional work done online. Workers may offer a wide variety of skills, such as writing, web design, video editing, and more. The matching process between worker and client may vary depending on the platform; on some platforms, the worker posts his skills and waits for potential clients to contact him, while on other platforms the client will post a job and wait for workers to apply to the job or gig. Workers perform or deliver the work virtually.

The attributes of Professional Freelance platforms have interesting implications for theory. Popiel (2017) studied the characteristics (e.g., wages, consistency of work, and user profiles) of labor on the platform Upwork and the implications for workers. He found that freelancers on the platform face significant trade-offs when using the platform. Although creating a profile on the platform is simple, few manage to find work and even fewer manage consistent pay. Constant shifting demands for work on the platform exacerbate the precarity involved in gig work. Research collecting data directly from workers on these platforms could contribute to our understanding of how workers grapple with the inherent precarity along with other issues associated with the transition to a platform worker rather than a self-employed businessperson. For example, the switch from small business owner to a single profile among

thousands of profiles on a platform might lower worker self-esteem and clients might treat workers as having less expertise or authority.

Capital Online Labor Platforms

Capital online Labor Platforms differ from the previous two classes of platforms in that clients perceive themselves as purchasers or renters of goods rather than employers of workers. Clients focus on the relevant products or property, and may not fully understand the work undergone by workers behind the scenes. Workers also have somewhat more autonomy when deciding how much to interact with clients. For example, hosts on AirBnb can interact with clients in person or may refrain from interacting with clients at all beyond the booking and check in process.

Hospitality Platforms

Hospitality platforms (in this study, Airbnb and VRBO) allow workers to list properties they own to an online marketplace for potential clients to browse for rental purposes. Client can search for properties based on their desired rental location as an algorithm suggests relevant properties for them to review. Clients can make their decision based on a variety of factors, such as the location, price, and photos provided.

Hospitality platforms provide some considerations for theory. While the individual tasks, such as cleaning rooms and communicating with clients, may bear a resemblance to tasks performed by workers in traditional hotels, the roles themselves are different in several ways. For one, rather than roles being divvied up amongst employees, workers must play all of the roles, including maid, host/hostess, customer service, and more. Furthermore, workers on the platforms are renting out their own property and may wrestle with anxieties surrounding a relative stranger staying in their property and interacting with their belongings. Additionally, workers can have

different intentions and motivations for why they use the platform. Some workers may be individuals only wanting to rent out their property occasionally, perhaps for extra income or for a novel social experience, while others may operate hospitality businesses and use platforms as a way to list multiple properties and manage payments.

Some scholars have already studied elements of Hospitality work unique to platforms. Jhaver, Karpfen, and Antin (2018) investigated the tensions involved in appealing to both prospective clients and to an algorithm, and strategies that appeal to clients may not favor the algorithm, or vice-versa. Additionally, workers grappled with limited transparency about how elements of a listing affect a listing's prominence on the platform. Lampinen and Cheshire (2016) found that the presence of a third party (the platform) eased many of the concerns workers had surrounding renting out of property by facilitating the transactions and handling disputes between workers and clients.

Commerce Platforms

Commerce platforms (in this study, Etsy and Artfire) provide an online space for workers to sell goods to clients. Workers can pay to list items on the platform, and clients can buy those items through the platform. While the platforms handle the transactions, the workers oversee sourcing and shipping the goods to their respective clients.

Some research has examined aspects of work on Etsy and Artfire and has helped demonstrate how selling on these platforms represent a departure from selling to clients offline. Papers that focused on the experience of workers crossed several topic areas including business and growth, community, and the platforms' effects on crafting culture. For example, Blanchflower and Hodges (2017) examined how as sellers grew in size and popularity, they faced additional threats, including the struggle of keeping up with sudden surges in demand.

Additionally, Kuhn and Galloway (2013) surveyed artisans and found that workers support each other through formal and informal networks. Finally, Abrahams (2016) shows how platforms like Etsy have blurred the lines between amateur and professional crafting. Unexplored by these studies is how the very act of selling online differs from in-person selling. Importantly, the personal interaction between buyer and seller largely disappears. While the worker no longer must deal with in person criticism or confrontation, the worker no longer has as much intimacy with the client, an aspect that the worker may have valued. And while in-person disparaging remarks may hurt a worker's feelings, the online comments and reviews could potentially cause as much or more damage to their psychic, akin to how cyberbullying can have more damaging effects than in-person bulling. One additional change for workers selling on platforms is that workers can no longer rely on in-person conversation and negotiation but instead utilize static photos and descriptions of products.

3.2 Platforms and Their Attributes

I developed a series of tables that provide information on each platform and the important attributes that help illustrate the ways platforms differ, and, for certain attributes, fail to differ. For each class of platforms (*Local Labor, Virtual Labor, Capital Labor*), I created three tables, for a total of nine tables. Each table examines one set of attributes (General Information, Information Exchange and Matching Process, and Financial Arrangements and Worker Incentives) for the given class of platforms. The resulting tables (3-11) can be found at the end of this paper. Here I analyze the results for each attribute, and I offer a brief explanation of why the attribute may be important for organizational theory. I also examine and discuss the differences in attributes' values for each class.

I begin my analysis with the six attributes in the **General Information** attribute set:

Duration of service: The majority of platforms (14 out of 20) offer short term (less than 24 hours) working arrangements, though only eight of the platforms exclusively offer short term options. Half of the platforms offer medium term (24 hours to a month) working arrangements, but no platform solely offers medium term options. Nine out of 20 platforms provided a long-term option, though only two do so exclusively. Platforms within the same category tended to have the same duration options (with only Professional Freelance platforms having incongruent options), though platforms within the same class had a mix of options with no discernable pattern.

The duration of service plays an important role in determining to what degree a platform enables new forms of work. Short- and medium-term working arrangements contribute more to the effects of the gig economy where workers must string together smaller gigs to earn a living. In addition to not providing a guaranteed source of income, these short-term arrangements do not offer many of the same benefits as long term employment options, such as unemployment insurance. If the number of workers on platforms with mostly short-term arrangements increases substantially, this increase may represent a shift in the economy. The implications for organizational theory are clear: to the extent that platform work is characterized by short term working arrangements, it appears to represent a striking lessening of the social contract between employer (here, client) and worker.

Arrangement Repeatable or Renewable: Sixteen out of the 20 platforms allow the same client and worker to repeat a given job with the same client. Only two categories of platforms, Transportation and Delivery platforms, fail to offer repeatable arrangements. Notably, both of those platform categories fall under the *Local Online Labor Platform* class. The lack of repeatable options for the former platform category, Delivery platforms, likely has few

implications as delivery workers traditionally do not form notable relationships with their clients, but a lack of repeatable options could have implications for the latter category, transportation workers. In traditional transportation settings, if a client forms a relationship with, say, a standard taxi or limousine driver, the client can request the workers information and request him for future rides. Drivers could theoretically derive a sense of positive affect and job satisfaction from providing regular rides to favored clients. Conversely, on the transportation platforms, clients cannot request individual drivers for a trip or schedule future rides with specific drivers.

A repeatable arrangement may mediate some of the theoretical effects of the "gig economy." On platforms with repeatable arrangements, the worker has the capability to form relationships with their employer (here, client) in the same manner that they could in traditional working arrangements. The presence of repeatable arrangements across most of the platforms may allow for workers to build some of the relationships that workers might experience in traditional working environments. However, the omnipresence of the platform makes finding new clients and forming new relationships easier than ever, so clients may feel less obliged to stick with

Self-Identifies as a Platform: Every platform self-identifies as a platform, making it the only consistent value for an attribute across all of the platforms examined. This consistency helps reinforce the idea that "platform" is a fitting umbrella term to describe this set of somewhat disparate services. Furthermore, while each platform uses the term platform to refer to itself in some capacity, some use the term more frequently and prominently than others. Care.com calls itself a "family care platform" in its "about" pages, while the platforms Fiverr and Mechanical Turk generally prefer the term "online marketplace" and only use "platform" occasionally and in less visible locations, such as in the terms of service.

The platforms often make efforts to emphasize that they are a platform and not an employer. Sittercity, for example, explicitly states that they "do not employ you in any way." In this way, platforms position themselves as a "third party" within the social contract between clients and workers. While platforms may not be employers in the traditional sense, they exert significantly more control over the worker than the client does. Disappointing a client may result in poor reviews or lost wages (among other potential consequences for the worker), but upsetting the platform can result in the worker losing their opportunity to work on the platform altogether. This arrangement is especially salient for platforms without prominent competitors that might provide similar opportunities for workers. Even if platforms do not consider themselves employers, only the platforms themselves possess the ability to "fire" a worker or significantly police her behavior over time. Perhaps platforms could best be viewed as agents that connect clients and workers. Nevertheless, while there are many agents whom workers can chose to work with, there are a limited number of platforms in each category who can match workers to a sufficient number of potential clients. This quasi-monopoly grants platforms a huge degree of control with comparatively little oversight.

Year Founded: The platforms examined were founded within a ten-year period from 2005 and 2015 with only two exceptions: VRBO, which was founded in 1995, and Sittercity, which was founded in 2001. The Capital Labor platforms generally were founded earlier than the other two classes of platforms, possibly due to their similarity to traditional shops and hotels and the fact that they do not require smartphone apps, which were not widespread until later. The founding dates provide some insight into the timeline of the gig economy, though the limited sample size prevents concrete analysis.

Rating or Feedback Systems: Only four of the platforms do not have a rating or a rating system, and only Therapy platforms universally lack a rating system, perhaps due to the incentive that may place on the therapist to avoid giving difficult yet necessary counsel. Rating systems can come in the form of star ratings (e.g., transportation platforms) or a binary "approve or disapprove" system (e.g., Mechanical Turk and YouTube). Nine of the platforms only facilitate one-way feedback that allow clients to evaluate workers' performance. One-way systems potentially represent risk for workers who lack ways of determining if a potential client may treat workers unfairly or have unsuitable working conditions. Seven of the platforms offer two-way feedback systems, which additionally allow workers to evaluate clients. Two-way feedback systems help prevent clients from treating workers poorly, as lowly rated clients may face difficulties finding workers or be removed from the platform entirely.

Some scholars have written about the effects of rating systems on platforms. On the Uber platform, the rating system produces a homogenizing effect (Rosenblat & Stark, 2016). In other words, the rating system encourages workers to deliver standardized experience over a novel one (i.e., a driver may feel dissuaded from designing a car's interior in a flavorful or ostentatious manner out of fear of alienating a client and causing a low rating). If drivers fail to conform to a certain norm expected by clients, they may face penalties in the form of low ratings, and low average ratings may result in a worker's removal from the platform. This additional level of control exerted by the rating systems runs contrary to narratives of freedom and flexibility presented by Uber (Rosenblat & Stark, 2016) and other platforms.

Tadelis (2016) wrote about rating systems on platforms more broadly. Review and feedback systems, such as those present on the platforms, facilitate trust between clients and workers. However, the rating systems may be limited by a number of biases that cause user-

generated rating systems to not reflect the actual quality of the service or product (Tadelis, 2016). For example, a reviewer may avoid leaving a negative review out of fear of retaliation from the aggrieved party, though some platforms, such as Uber, mitigate this effect by concealing individual ratings. Tadelis also pointed out that fake reviews can also cause rating systems to inaccurately reflect quality, though platforms increasingly require confirmed purchases before a client can leave a review. Reviewers may also have implicit or explicit biases against people of certain demographics, which can cause workers or clients to receive unfair ratings.

In addition to their homogenizing effects and their proneness to bias, rating systems also offload worker evaluation responsibilities traditionally delegated to managers within organizations (Rosenblat & Stark, 2016). In typical working arrangements, a manager monitors and evaluates an employee over time, yet on platforms working arrangements often last less than a month. Rating systems provide a way to evaluate the workers over time as they move across employers from job to job. Organizational theory has previously adapted to accommodate increases in the amount and scope of employee evaluations. Prior scholars have written about the rise of an "audit culture," in which the increasing presence of auditing tools has reshaped working environments and influencing worker behaviors (Shore, 2008; Shore & Wright, 2015). Evaluation in traditional working environments has largely been quantitative and narratively based and performed by a range of people (e.g., bosses and employees) of whom the worker has some familiarity with. However, reviews and ratings on platforms are largely quantitative, performed by temporary clients, and completed in seconds. As an added bonus for the platforms, the clients perform this evaluation for free.

Finally, it is important to note that not all platforms utilize the ratings in the same way. Uber requires its workers to maintain a certain star rating (the exact requirements may vary by area due to cultural differences) while other platforms do not maintain such a requirement and instead provide the rating system as a tool for customers to view when considering whether to hire a worker. Some platforms, such as the Delivery platform Postmates, ostensibly do not consider the rating given by the client at all, as the platform does not use ratings as a metric to evaluate worker performance nor may clients view the rating of the worker.

Presence of Online Communities: Fourteen out of the 20 platforms have online communities where workers (and clients, in some cases) can discuss aspects of their work on the platform. Some platforms, like Care.com, host these forums directly on the platform, which may increase the forum's visibility, but also affords platforms the ability to censor criticisms of the platform and remove unruly users. Other forums take place on third party websites. For instance, the subreddit /r/mturk provides a place for workers to share tips, stories, memes, and other content relevant to the Mechanical Turk platform. Workers in traditional work environments often have managers and peers who they work in close proximity with and can consult for advice; online communities may provide a substitute for the interpersonal relationships that workers might form with peers in traditional workplace. Nevertheless, these relationships may feel less personal, and are also subject to monitoring by clients and employees of the platforms.

Next, I begin my analysis for the seven attributes in the **Information Exchange and Matching** Process attribute set:

Who Initiates Transaction and **Who Accepts Offer:** I find that these two attributes do not differ greatly from their traditional counterparts and therefore are less likely to be of interest to organizational theory. Fifteen out of the 20 platforms require the client to initiate the working

arrangement, which largely mirrors how such transactions would work traditionally. The three platforms that allow either party to initiate the working arrangement might provide an interesting exception that differs from traditional counterparts. On these platforms, both parties must market themselves to the other party, which could affect how workers interact with the platform. Do they focus on applying to jobs, or wait for clients to request their services?

Who Picks or Matches: Six of the platforms match the clients to workers automatically rather than having the worker or client choose their counterpart. The platform taking control of the matching process marks a significant departure from traditional practices and places the platform in an important position of power. Five of those platforms used an algorithm to match the parties, which raises questions of transparency of how the algorithm works (Faraj, Pachidi, and Sayegh, 2018; Gal, Jensen, & Stein, 2017). Instead of workers marketing their skills to potential clients, like they have done traditionally, they must conform to the predilections of an algorithm with inscrutable preferences (Jhaver et al., 2018). One platform had an entirely unique matching process: On the Therapy platform Talkspace, clients can opt to have a human "matching expert" connect them with a therapist based on a short conversation with the matching expert to determine the clients' needs. It may be interesting to study how workers appeal to a human matcher on the platform, though given that this arrangement appears to be an outlier, it may be of lower priority and interest to researchers.

Client Knows: The amount of information available to clients varies across platform categories, and platforms with longer durations of service generally provided more information to clients. For platforms with long term arrangements, such as Housework platforms, the client can see the workers' skills, experience, education, payment preferences, work history, skills, certifications, and more. The high amount of information available may make clients surer of

their hiring decisions, especially when platforms can verify the information. In contrast, platforms with short term arrangements provided minimal information to clients about the workers. For example, clients on Microwork platforms could see almost no information about the clients completing the task. Irani and Silberman (2013) argued that Mechanical Turk intentionally minimizes and hides the humans completing the work on the platform. They make the critique "by hiding workers behind web forms and APIs, [Mechanical Turk] helps employers see themselves as builders of innovative technologies, rather than employers unconcerned with working conditions" (p. 4). In other words, by hiding information that reveals the humanity of the worker, platforms may reduce the guilt felt by clients utilizing platforms that treat workers poorly.

Worker Knows: The amount of information available to the worker varies highly by platform type. Some platforms offer more information to clients than to workers. Workers on housework platforms have expressed frustration at this asymmetry: Workers felt that while clients had ample information about the workers, workers lacked enough information to properly scrutinize clients (Ticona & Mateescu, 2018). However, providing the worker with too much information could prove problematic. For example, Ge, Knittel, MacKenzie, and Zoepf (2016) found that African American passengers on Uber and Lyft faced longer waiting times and more frequent trip cancellations.

The information provided to platform workers may be different than the information available to their traditional counterparts. Platforms may offer the worker more information or less information than they would receive traditionally, and the amount of information a worker has can influence their behavior. Uber drivers, for example, have less information available when making their decision of whether or not to accept a ride request than traditional taxi or limo

drivers. For example, Uber drivers do not know the pickup or drop-off location of the client before accepting the request, while taxi drivers do. This absence of information could lead to Uber drivers potentially accepting rides to locations where they do not feel safe. To summarize, worker knowledge is important to organizational theory insofar that it differs from the information normally available to workers in their traditional equivalents as it may affect the decision-making abilities of workers, either positively or negatively.

Background Check: Twelve platforms do not require a background check. No *Capital Labor* platform required a background check, and of the *Virtual Labor* platforms, only two (the Therapy platforms) out of eight required a background check. *Virtual* and *Capital* platforms may offer avenues for workers who cannot pass a background check to earn money in the gig economy. Conversely, all the *Local Labor* platforms either required workers to pass a screener or background check, possibly due to the potential safety and liability concerns associated with workers working in close proximity to the client. The presence of a background check does not appear to differ greatly from platforms' traditional counterparts. For example, while Uber drivers must pass background checks, taxi drivers generally have to as well. For this reason, this attribute is likely less interesting to organizational theorists.

Other Requirements: The requirements of workers vary largely by the type of platform. For six platforms, the worker requirements vary by the type of task, and the client could adjust the requirements to suit the client's needs. For instance, Housework clients may require workers to have several years of experience, a car, first aid certification, and other prerequisites. The other 14 platforms have at least one requirement to work on the platform, such as a driver's license or a professional skill. However, the requirements in some cases may be fewer than many traditional equivalents, which could provide an avenue for new workers to enter a field. While

employers traditionally may not want to take a risk on hiring a worker without a certain degree or other qualification, platforms offer clients a comparatively inexpensive and low-risk way to test out a worker's capabilities. For example, employers in traditional working environments may require that a data analyst have a STEM degree, but platforms may afford workers the opportunity to demonstrate their skills and build up their resume in the process.

Finally, I analyze the **Financial Arrangements and Worker Incentives** attribute set:

Worker Paid Through Platform: Out of the twenty platforms examined, only the two Hiring platforms (ZipRecruiter and Glassdoor) do not offer the option of paying the worker through the platforms' infrastructure. Sixteen of the platforms require that workers use the platform to handle payments, and the two Housework platforms (Care.com and Sittercity) made payment through the platform optional. Ticona and Mateescu (2018) in their study of Housework platforms found that the platforms represent an attempt to formalize previously informal forms of work, such as babysitting. Workers paid through platforms are subject to increased visibility of their pay to institutions such as the IRS. For example, workers who traditionally had received all or some of their income under the table may no longer have the ability to shield their earnings from institutions. As discussed earlier in my analysis of Housework platforms, platform work may provide an interesting pathway for invisible and arguably illegal arrangements into legal arrangements. A policing or officiating element arises in platforms that allow or require payments to occur directly through the platform.

Who Decides Price: Eight of the platforms do not offer the worker any control over the price charged to the client. Of those platforms, the two Therapy platforms charge clients a flat subscription per month, while the remaining platforms used an algorithm that decides the price based on a variety of factors, such as the distance the worker has to travel. The lack of autonomy

in pricing could have both positive and negative implications for workers. Having no control over price could reduce the stress or cognitive load involved in negotiating or determining the price. On the other hand, workers in this arrangement cannot negotiate for higher wages.

Five of the platforms require workers to negotiate and agree with clients on the price. Other platforms either have the client or worker set the price ahead of time. Only the two Microwork platforms have the client set the price, while the remaining five platforms (including all *Capital Labor* platforms) allowed the worker to set the price. The ability to set prices could serve as an interesting reflection of the relative power each party has on a given platform. For instance, clients set the price on Microwork platforms, such as on Mechanical Turk, a platform that Irani and Silberman (2013) asserted privileges the client over the worker. The privileging of client priorities on platforms is unsurprising given the highly rationalized and repetitive nature of much of the work performed. Workers with rationalized tasks have power in traditional work only to the extent they have unions, and the lack of face to face interaction among workers makes such organizing impossible. Workers therefore must rely on third party websites or applications to organize against or protest poor wages, which may prove impossible to do. However, platforms that allow the worker to set the price or permit a negotiation between the parties allow the worker to exercise more discretion, similar to how they have done traditionally. Yet, the platforms afford clients the ability to quickly compare (and in some cases, filter out) workers that request higher wages. Organizational researchers will need to uncover what methods workers utilize to express their value to clients, and therefore can demand higher wages.

Wage Guarantee: The presence of a wage guarantee varies highly by platform class. All *Local Labor* platforms had at least a conditional wage guarantee, but outside of the *Local Labor* platforms only the two Therapy platforms (Betterhelp and Talkspace) exhibit a guaranteed wage.

Overall, only half of all platforms examined in this study offer the ability to receive a guaranteed wage, and even for those platforms, the wage was sometimes conditional on worker performance or is simply the legally minimum wage. A lack of reliable or steady income could have important implications for the well-being of workers. For example, workers with perceived chronic job insecurity have reported negative health impacts (Ferrie, Shipley, Stansfeld, & Marmot, 2002). The lack of a guaranteed wage could pose threats to workers in poverty living from paycheck to paycheck, as receiving less than expected revenues could result in missed payments and increased debt.

Platform Fee: Six platforms do not charge workers to use the platform and instead only charged the client. The remaining platforms generally take a cut of the worker's earnings for each transaction. In this manner, platforms less resemble traditional employers and instead may be analogous to government entities. Like governments, platforms provide the infrastructure (or, for platforms, cyberinfrastructure) for workers to find work. In exchange for this infrastructure, governments and platforms take a percentage of the workers received income. However, on platforms, the workers can exercise little control over the "tax rate", and cannot vote to reduce it. By the same token, workers cannot vote to increase the platform fee to support the development of new features. The platform will likely decide a fee that maximizes profit, not worker benefit.

Consequently, the platform fees charged to work likely may be negatively correlated with the number and relative size of competitors. For example, workers on Video platforms have few, if any, alternative means to monetize their video or streaming content, and the Video platforms charged the highest percentage fee for workers, with both YouTube and Twitch.tv taking between a 45 to 50% cut of the workers' earnings. Additionally, *Capital Labor* platforms tended to have lower platform fees than the other two classes of platforms, possibly due to the relative

ease of selling or renting goods on a variety of offline and online means. My findings provide some amount of evidence to support this claim; additional data collection could confirm it. The number of competitors could also be correlated with how well platforms treat workers in other respects. For example, if Uber competitors begin offering a new service or feature (e.g., free car washes), Uber may feel compelled to offer similar services to avoid losing workers to competing platforms.

Negative Consequences for Declining: On seven of the platforms, workers can face negative repercussions for declining a job. The consequences generally are fairly minor and varied by platform; for Lyft, a worker declining a ride would hurt her acceptance rate, which determines her eligibility for certain features of the platform. For Fiverr, declining requests could hamper workers' visibility in search results. The presence of negative consequences could represent a relative loss of autonomy compared to traditional independent contractors who often have great flexibility in deciding who to work for and what jobs to take. Conversely, workers in traditional firms generally cannot turn down tasks. This ability to decline, albeit with penalties, places the autonomy of platform workers somewhere in-between traditional firm employees and independent contractors. Research can uncover how workers feel about the negative consequences for declining and how the threat of punishment affects decision making in this area.

Gamification Methods: Scheiber (2017) noted in *The New York Times* that while companies have long used psychological tricks (such as gamification) to encourage workers to purchase goods and services, the attempt by platforms to extend such strategies to the workforce could be transformative. Platforms' apps can use visualization techniques (such as a progress bar) that allow workers to easily see the progress they make towards goals in real time. The app

can even provide extra stimuli (e.g. a small fireworks display combined with a pleasant tune) when the worker reaches a goal or milestone, much like when a player completes a level in a game. Despite their potential, only seven platforms use gamification methods to incentivize or motivate patterns of behavior in workers, though perhaps such techniques are only necessary for certain types of work. The Transportation and Delivery platforms provided additional incentives for workers during high demand periods. Uber, for example, offers "quests" for drivers to complete a certain number of trips within a period of time to receive a reward (e.g., provide 15 trips during the weekend to earn $50). In this way, gamification methods signify an attempt to control worker behavior on platforms that often boast about the freedoms afforded by the platform. For example, Uber, on their "Why drive with us" page, advertises the flexibility afforded by the platform that allows workers to set their own hours.

Interestingly, only one *Virtual Labor* platform uses gamification strategies. Perhaps this is because most of the work performed on *Virtual Labor* platforms can be done at any time, thus reducing the need to encourage workers to work during high demand times. However, *Virtual Labor* platforms could still use gamification methods to encourage other types of behavior. For example, YouTube gives physical trophies, known as YouTube Play Buttons, to workers who hit certain subscriber milestones, which provides an additional incentive for workers to remind clients to "subscribe" to their channel. No *Capital Labor* platforms appeared to offer gamified incentives, though workers could adjust their prices to match the demand for clients during peak periods.

Possibility for Advancement: Nine platforms offer some way for workers to achieve a "promotion" or similar status upgrade. Workers can achieve these status upgrades by maintaining good performance and consistent work over time. Generally, these status upgrades

gave the workers additional advantages and privileges. On Airbnb, for example, workers can become “Superhosts” by receiving high ratings from clients and maintaining high performance metrics. Superhosts are more likely to be featured in guest search results, emails, and more. Clients can also use filters to exclusively see Superhosts.

Platforms have struggled with retaining workers over time; over half of workers using online labor platforms stop working on the platform within one year (Farrell and Greig, 2016). Platforms that offer the ability to rise in status (akin to traditional promotions) could motivate workers to continue working on platforms long term. Additionally, advancement possibilities could motivate workers to stay with one platform and neglect competing platforms to achieve a certain status level. These advancement opportunities show how traditional mechanisms in employing firms have creeped into platforms, rendering the concerns of platforms similar to those of the employers they claim to be different from. Organizational theorists may find it interesting to discover how effective such incentives are at motivating workers and if they effectively substitute for promotions present in traditional forms of work.

4. Discussion and Implications

The analysis conducted in this paper contributes to our understanding of platforms and why certain platform attributes may have important implications for organizational theory. Platforms with a short or medium-term “duration of service” appear to disrupt the social contract between workers and employers by reducing typical worker-employer bonds and eliminating certain long-term employment benefits, such as healthcare insurance. Additionally, certain platform attributes reduce the need for human management traditionally performed by organizations. Rating systems offload management responsibilities to clients and algorithmic matching systems dramatically reduce the labor involved in finding prospective clients or

workers. Finally, attributes relevant to the incentive structure of platforms (e.g., gamification methods and possibility for advancement) could contribute to our understanding of worker motivation on platforms. Table 12 summarizes each attributes' potential challenges to organizational theory.

As Table 12 notes, some attributes pose less significant challenges to organizational theory, or may not matter at all. "Year founded," for example, may contribute to our understanding of the history and possibly even the trends in the development of new platforms, but ultimately the year the platform was founded plays little role in what work is like on the platform. Other attributes pose little challenge to organizational theory due to a lack of differences to traditional counterparts. "Who Initiates Transaction," for instance, largely does not represent a significant change to work as, for the most part, the same party initiates the transaction whether or not it occurs through a platform. All of the attributes in the "Information Exchange and Matching Process" attribute set had medium to low potential influence on organizational theory, which may indicate that the matching process in some respects does not differ greatly from how matches have been made traditionally; perhaps platforms simply facilitate the matching process rather than changing it on a fundamental level.

We can extrapolate from the attributes of platforms to form an idea about which categories of platforms are the most theoretically interesting. For example, Transportation platforms have short durations of service, gamification methods, and algorithmic matching systems, a combination that suggests a high amount of theoretical potential (and somewhat justifies its popularity among academics).

Conversely, this paper explains why certain categories of platforms may not represent significant departures from typical forms of work and the traditional social contract between

employers and employees. Platforms with attributes akin to their offline counterparts may represent less change for the lives of workers on a daily basis. Online labor platforms that offer long term employment options, such as the Housework platforms and Hiring platforms, run counter to some narratives of the gig economy. For example, Scholtz (2016) wrote about the possibility of the death of professions as more people's jobs become "Uberized." He observed that as workers move from traditional full-time workers to contingent workers, they lose benefits such as minimum wage and anti-discrimination employment protections. However, platforms that match workers with long term employment opportunities may reinforce traditional employment norms. In fact, platforms may represent attempts to formalize aspects of traditionally less formal work, as seen by Ticona and Mateescu's (2018) analysis of carework (in this study, Housework) platforms. The existence of platforms that formalize hiring or reinforce traditional hiring practices (such as Hiring platforms) may help explain why the percentage of contingent workers has not substantially changed in the past 15 years (Appelbaum, Kalleberg, & Jin, 2019) despite the substantial growth of platforms as we entered the so-called "platform economy."

Conclusions and Future Research

Continued research on platforms will be important to understanding the future of the gig economy. Future research could examine the categories of platforms currently understudied by the literature. Notably, few studies appear to examine the lives of workers on Commerce, Therapy, and Housework platforms despite their unique potential for organizational theory. Ticona and Mateescu (2018) pointed out that despite the fact that housework platforms have had greater number of workers than transportation platforms, both public and scholarly discussion has focused on the male-dominated Uber, which suggests a gender bias in coverage. New

empirical work could help us understand how workers wrestle with the unique dynamics present in understudied platform categories.

Additionally, future research could study some of the attributes more theoretically interesting that the literature does not currently address in detail, such as the presence of online communities. Research could analyze forum postings of platform workers within these communities to better understand what function these online communities play. These communities may supply an important outlet for bonding among highly separate and independent workers, or they could help workers manage and overcome issues with the platform that would typically be resolved by consulting management in a typical work environment.

Not all gig jobs are alike; yet authors commonly paint the platforms that increasingly mediate and facilitate work with the same wide brush. This report reveals that online labor platforms differ extensively in their attributes, and the differences in these attributes have important ramifications for work and workers. Understanding these differences is key to discerning what platforms mean for the future of work.

Table 1. Platform Attributes

Attribute Set	*General Information*	*Information Exchange and Matching Process*	*Financial Arrangements and Worker Incentives*
Attributes in the Set	• Duration of Service • Arrangement Repeatable or Renewable • Self-Identifies as a Platform, • Year Founded • Rating or Feedback System • Presence of Online Communities	• Who Initiates Transaction • Who Accepts Offer • Who Picks or Matches • Client Knows • Worker Knows • Background Check Required • Other Requirements	• Worker Paid Through Platform • Who Decides Price • Wage Guarantee • Platform Fee, • Negative Consequences for Declining • Gamification Methods • Possibility for Advancement

Table 2. Platform Classes

Classes of Platforms	*Local Online Labor Platforms*	*Virtual Online Labor Platforms*	*Capital Online Labor Platforms*
Categories of Platforms in Each Class	• Transportation • Housework • Delivery • Hiring	• Microwork • Therapy • Video • Professional Freelance	• Hospitality • Commerce

Table 3. Local Online Labor Platforms – General Information Table

Platforms:	Uber	Lyft	Care.com	Sittercity	UberEats	Postmates	ZipRecruiter	Glassdoor
Type of Platform	Transport	Transport	Housework	Housework	Delivery	Delivery	Hiring	Hiring
Duration of Service*	Short Term	Short Term	Short, Medium, or Long Term	Short, Medium, or Long Term	Short Term	Short Term	Long Term	Long Term
Arrangement Repeatable or Renewable	No	No	Yes	Yes	No	No	Yes	Yes
Self-Identifies as a Platform	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year Founded	2009	2012	2007	2001	2014	2011	2010	2007
Rating / Feedback System	Two Way	Two Way	One Way	Two Way	Two Way[3]	One Way	None	One Way
Presence of Online Communities	Yes	Yes	Yes	No	Yes	Yes	No	No

[3] Both clients and restaurants rate workers, but the worker only rates the client

Table 4. Local Online Labor Platforms – Information Exchange and Matching Process

Platforms:	Uber	Lyft	Care.com	Sittercity	UberEats	Postmates	ZipRecruiter	Glassdoor
Who Initiates Transaction	Client	Client	Either Party	Either Party	Client	Client	Client	Client
Who Accepts Offer	Worker	Worker	Mutual Acceptance	Mutual Acceptance	Worker	Worker	Mutual Acceptance	Mutual Acceptance
Who Picks or Matches	Platform (Algorithm)	Platform (Algorithm)	Client Picks	Either Can Contact	Platform (Algorithm)	Platform (Algorithm)	Algorithmic Matching, or parties can contact	Worker Applies
Client Knows:	Driver Rating, Name, Price, ETA	Driver Rating, Name, Price, ETA	Worker Rating, Price, Bio, Qualifications	Worker Rating, Price, Bio, Qualifications	Price, ETA	Price, ETA	Resume	Resume
Worker Knows:	Rider Rating, Name, Distance, Pay	Rider Rating, Name, Distance, Pay	Distance, Dates, Pay, Job Description,	Distance, Dates, Job Description,	Distance to Restaurant	Merchant name, location, delivery fee, # of deliveries	Job description, company info, salary	Job description, company info, rating, salary
Background Check Required	Yes	Yes	Optional	Optional	Yes	Yes	Optional (performed by client)	Optional (performed by client)
Other Requirements	Documents, Drivers License	Documents, Drivers License	Varies by job	Varies by job	Documents, Drivers License	Bike, car, or scooter	Varies by job	Varies by job

Table 5. Local Online Labor Platforms – Financial Arrangements and Worker Incentives

Platforms:	Uber	Lyft	Care.com	Sittercity	UberEats	Postmates	ZipRecruiter	Glassdoor
Worker Paid Through Platform	Yes	Yes	Optional	Optional	Yes	Yes	No	No
Who Decides Price	Algorithm	Algorithm	Negotiation	Negotiation	Algorithm	Algorithm	Negotiation	Negotiation
Wage Guarantee	Conditional	Conditional	Minimum Wage	Minimum Wage	Yes	Yes	Minimum Wage	Minimum Wage
Platform Fee	20%	Variable %	Subscription (client pays) (optional worker subscription)	Subscription (client pays)	25% cut	20% cut	Subscription (client pays)	Subscription (client pays)
Negative Consequences for Declining Work	Yes	Yes	N/A	N/A	Yes	No	N/A	N/A
Gamification Methods	Yes	Yes	No	No	Yes	Yes	No	No
Possibility for Advancement	No	No	Yes	Yes	No	Yes	Not by Platform	Not by Platform

Table 6. Virtual Labor Platforms – General Information Table

Platforms:	Mechanical Turk	Microworkers	Betterhelp	Talkspace	YouTube	Twitch.tv	Fivrr	Upwork
Type of Platform	Microwork	Microwork	Therapy	Therapy	Video	Video	Professional Freelance	Professional Freelance
Duration of Service	Short Term	Short Term	Medium or Long Term	Medium or Long Term	Short Term	Short Term	Short or Medium Term	Short, Medium, or Long Term
Arrangement Repeatable or Renewable	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Self-Identifies as a Platform	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year Founded	2005	2009	2013	2012	2005	2011	2010	2015
Rating / Feedback System	Yes (Approve / Dissaprove)	Yes (Satisfied / Dissatisfied)	No	No	Yes (Thumbs up / Down)	No	Yes (one way)	Yes (Two Way)
Presence of Online Communities	Yes	No	No	No	Yes	Yes	Yes	Yes

Table 7. Virtual Labor Platforms – Information Exchange and Matching Process

Platforms:	Mechanical Turk	Microworkers	Betterhelp	Talkspace	YouTube	Twitch.tv	Fivrr	Upwork
Who Initiates	Client	Client	Client	Client	Worker	Worker	Client	Either Party
Who Accepts Offer	Worker	Worker	Automatic Acceptance	Automatic Acceptance	Client	Client	Worker	Mutual Acceptance
Who Picks or Matches	Worker	Worker	Platform (Algorithm)	Platform (Algorithm or Human)	Client	Client	Client	Client
Client Knows:	No Info About Worker	Nothing	Worker Bio	Worker Bio	Video Title, Statistics, Worker Username, Rating	Activity, Viewership, Worker Username,	Price, Gig Description, Membership, Worker Bio, Rating	Price, Worker bio, success rate
Worker Knows:	Payment amount, successful %, time to finish, job title,	Payment amount, successful %, time to finish, job title, description	Info provided by client (such as reason for visit)	Info provided by client (such as reason for visit)	Viewer demographics	Number of viewers	Job specific info given by client	Job Specific info given by client
Background Check Required	No	No	Yes	Yes	No	No	No	No
Other Requirements	Varies by Task	Varies by Task	Relevant Master's Degree, Work Experience	Relevant Master's Degree, Work Experience	Sufficient viewership, approval by human and algorithm	Consistent Viewership, Approval by Human	A Professional Skill	A Professional Skill

Table 8. Virtual Labor Platforms – Financial Arrangements and Worker Incentives

Platforms:	Mechanical Turk	Microworkers	Betterhelp	Talkspace	YouTube	Twitch.tv	Fivrr	Upwork
Worker Paid Through Platform	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Who Decides Price	Client	Client	Platform	Platform	Platform (Algorithm)	Platform (Algorithm)	Worker	Negotiation
Wage Guarantee	No	No	Yes	Yes	No	No	No	No
Platform Fee	20% cut (client pays)	7.5% cut + Listing Fee (client pays)	Info Not Available	Info Not Available	45% cut	Varies (up to 50%)	20%	20% (Decreases over time)
Negative Consequences for Declining	Yes	Yes	N/A	N/A	N/A	N/A	Yes	No
Gamification Methods	Yes	Yes	No	No	Yes	No	No	No
Possibility for Advancement	Yes (Can earn additional qualifications)	Yes (Can become a "Best Worker")	No	Yes, "Training and Professional Growth Opportunities"	Indirect (can earn more through channel growth)	Indirect (can earn more through channel growth)	Yes (Fiverr Levels)	Yes (Can become "top rated")

Table 9. Capital Labor Platforms – General Information Table				
Platforms:	AirBnB	VRBO	Etsy	Artfire
Type of Platform	Hospitality	Hospitality	Commerce	Commerce
Duration of Service	Medium or Long Term	Medium or Long Term	Short or Medium Term	Short or Medium Term
Arrangement Repeatable or Renewable	Yes	Yes	Yes	Yes
Self-Identifies as a Platform	Yes	Yes	Yes	Yes
Year Founded	2008	1995	2005	2008
Rating / Feedback System	Two-Way	Two-Way	One-Way	One-Way
Presence of Online Communities	Yes	Yes	Yes	Yes

Table 10. Capital Labor Platforms – Information Exchange and Matching Process				
Platforms:	AirBnB	VRBO	Etsy	Artfire
Who Initiates	Clients	Clients	Clients	Clients
Who Accepts Offer	Worker	Worker	Worker	Worker
Who Picks or Matches	Client	Client	Client	Client
Client Knows:	Price, Rating, rental description	Price, rating, rental description	Seller rating, product description, price	Seller Rating, product description, price
Worker Knows:	Reviews of client by other workers	Guest name, Multiple rating (cleanliness, house rules, communication)	Address, Buyer Messages	Address, Buyer Messages
Background Check Required	No	No	No	No
Other Requirements	Rental Unit	Rental Unit	Product for sale	Product for sale

Table 11. Capital Labor Platforms – Financial Arrangements and Worker Incentives

Platforms:	Airbnb	VRBO	Etsy	Artfire
Worker Paid Through Platform	Yes	Yes	Yes	Yes
Who Decides Price	Worker	Worker	Worker	Worker
Wage Guarantee	No	No	No	No
Platform Fee	"Generally" 3%	6-12%	Listing + Transaction Fees	Listing + Transaction Fees
Negative Consequences for Declining	Depends on Circumstance	Yes	No	Info not available
Gamification Methods	No	No	No	No
Possibility for Advancement	Yes (Become a 'Superhost' and Airbnb plus	No	No	No

Table 12. Attributes and Their Potential Impact on Organizational Theory

Attributes	Impact on Org Theory	Why the attribute may or may not pose challenges to organizational theory or represent a departure from traditional forms of work.
Duration of Service	High	The duration of service plays an important role in determining to what degree a platform enables "new forms of work.". To the extent that platform work is characterized by short term working arrangements, it appears to represent a striking lessening of the social contract between employer (here, client) and worker.
Arrangement Repeatable or Renewable	Low	The presence of repeatable arrangements across most of the platforms may allow for workers to build some of the relationships that workers might experience in traditional working environments.
Self-Identifies as a platform	High	Platforms position themselves as a "third party" within the social contract between clients and workers. While platforms may not be employers in the traditional sense, they exert significantly more control over the worker than the client does.
Year Founded	Low	The founding dates provide some insight into the timeline of the gig economy, but matter little for day-to-day work.
Rating or Feedback System	High	The effects of rating systems are significant; they have homogenizing effects, are prone to bias, and can alter worker behavior. Platform rating systems promote a significantly different form of evaluation not present in traditional working environments.
Presence of Online Communities	Medium	Online communities may provide a substitute for the interpersonal relationships that workers might form with peers in traditional workplace. Nevertheless, these relationships may feel less personal, and are also subject to monitoring by clients and employees of the platforms.
Who Initiates Transaction	Low	The party that initiates the transaction does not differ greatly from traditional counterparts.
Who Accepts Offer	Low	The party that accepts the offer does not differ greatly from traditional counterparts.
Who Picks or Matches	Medium	The platforms that take control of the matching process mark a significant departure from traditional practices and places the platform in an important position of power, though only six platforms take control of the matching process.

Table 12, cont.		
Client Knows	Medium	The amount of information available affects the visibility of workers. High visibility can help clients make hiring decisions, while low visibility depersonalizes the worker and conceals the treatment workers receive.
Worker Knows	Medium	Worker knowledge is important to organizational theory in cases that it differs from the information normally available to workers in their traditional equivalents as it may affect the decision-making abilities of workers both positively or negatively.
Background Check Required	Low	Workers who have traditionally undergone background checks also undergo background checks on platforms.
Other Requirements	Low	Workers in traditional working arrangements have generally needed some qualifications to work, and platforms are no exception.
Worker Paid Through Platform	Medium	For most platforms, the platform handles the payment process. A policing or officiating element arises in platforms that allow or require payments to occur directly through the platform.
Who Decides Price	Medium	Almost half the platforms do not allow the worker to negotiate prices, which shows a lack of power for workers on platforms.
Wage Guarantee	Medium	Wage guarantees can offer workers some income security, though only half do so.
Platform Fee	Low	The amount that the platforms charge matters little for day-to-day for work.
Negative Consequences for Declining	Medium	This ability to decline, albeit with penalties, places the autonomy of platform workers somewhere in-between traditional firm employees and independent contractors.
Gamification Methods	High	Gamification methods allow platforms to incentivize worker behavior in novel ways.
Possibility for Advancement	High	Organizational theorists may find it interesting to discover how effective advancement opportunities are at motivating workers and if such opportunities effectively substitute for promotions present in traditional forms of work.

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